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## P R E F A C E.

**I**N the Eighth Volume of these Transactions, page 231, it is recorded that the Silver Medallion was adjudged to Mr. John Charles Lochée, of Poland-Street, Oxford-Street, for a Bust of His Royal Highness the Prince of Wales. The consent of His Royal Highness having been obtained, it was proposed that a Print from a Cast of that Bust should be prefixed as a Frontispiece to this Volume: but Mr. Sharp, the Artist, to whom the execution of the Plate was entrusted, having by an accident been prevented completing the Engraving, it has been thought proper to delay the publication no longer; the Volume must therefore appear without it.

Yet, as Mr. Sharp has engaged to finish the Plate before another Volume can be published, the Print will be prefixed to that Book; and it is hoped this will serve as an apology for the present omission.

Among the Papers inserted under the head of Agriculture, in the following pages, it must give satisfaction to every intelligent Reader to observe the advances making in that branch of the Society's attention.

The several plantations of useful Trees, and the judicious observations on the Chestnut, cannot fail to be highly gratifying to all Planters of Forest-trees. The Paper on the comparative Merits of the Drill and Broad-cast Husbandry, exemplified by the very extensive experiments related in the Letters of Mr. Rogerfon, throws a very clear light on that subject, which has for many years engaged the attention of the most celebrated Agriculturists of this and other Countries of Europe, and will probably

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bably tend to solve a question, allowed by all to be of the first importance to the Husbandman and the Public. Another object of great consideration with every Cultivator, has been to determine the necessity of fallowing Land: the Letter from Mr. Dunn inserted in this Volume, relating an experiment of planting Potatoes on ground proposed to be fallowed, and the account of the value of the crop obtained thereon, will tend to elucidate that matter; and particularly so, when the produce of the Wheat on that land shall have been communicated to the Society.

The use of Potatoes in feeding Cattle and Sheep begins now to extend itself into many different parts of the kingdom; and some of the advantages to be expected from that practice will be found by perusing the Paper from Mr. Bucknell on that subject.

When the use of Potatoes has become so general throughout the kingdom as to supply, in a great degree, the place of Bread,

every attempt to guard against a failure of that useful root must be highly gratifying; and although the Papers of Mr. Hollins do not propose a remedy or cure of the Curl, when the disease has taken place, yet, from very certain authority, it appears that his method of prevention has been in a remarkable degree successful; and as in the following sheets his mode of cultivating the Potatoe is clearly described, it is hoped that any gentleman who may hereafter practise it, will favour the Society with such observations as occur thereon, that the Public may gain full information on a subject of such importance.

The Letter of Mr. Dann will shew what advantage may probably ensue from the use of the Drill in the culture of Turneps; and a Paper received from the same Gentleman, and for which the Gold Medal has been adjudged to him, but which came too late to be inserted in this Volume, will, when printed, more fully ascertain the comparative

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tive advantage of the two methods, in the culture of this useful and necessary plant.

The great quantity of waste and uncultivated Land in this kingdom, is a constant and universal cause of complaint; and whoever travels over that part of the country where the improvements of Sir Thomas Hanmer have taken place, will observe with great pleasure the advantage arising from them, but at the same time will feel a regret that an example so laudable has not been more generally followed.

To procure within these kingdoms a supply of Honey and Wax, has long been an object of the Society's attention; and in this Volume will be found three Papers on the subject of keeping Bees, which, it is presumed, will furnish much information on that head. The principal parts are written by persons who have long kept those useful and industrious insects, and are become perfectly acquainted with the mode

of managing them and obtaining the honey, and this without any abstruse theory; the success that has attended their labours having in a great measure arisen from care, and that best instructor Experience.

To prevent the annoyance from the smoke of Steam-Engines, and other large works, premiums have been offered during many years; and under the head of Chemistry, in this Volume, is inserted a Paper proposing to condense the smoke arising from Steam-Engines, in such manner as not only to prevent annoyance, but even to obtain a material of use and value. How far the proposition, in its present state, may be found worthy the adoption of the great Manufacturers, can only be determined by experiment; but it is probable some useful hint will be furnished by that Letter, which, in time, may be productive of advantage; and should the method here proposed be adopted, any communication on the subject will be highly satisfactory to the Society.

In

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In the class of Polite Arts, no Papers have been received this year that have been thought fit for publication.

In the class of Manufactures, a claim has been made, and the Premium adjudged, for manufacturing a quantity of Cloth from Hop-Stalks. It is many years since the Society received information that the Stalks or Binds of the Hop furnished a material for a strong and useful Cloth, and that they were employed for that purpose in Sweden. As one main intention of this Institution is to convert refuse materials to useful purposes, the endeavouring to establish a Manufacture of Cloth from Hop-Stalks, which have hitherto been considered as fit only for fuel, or the dung-hill, may well be esteemed a matter of national importance.

The twenty-five yards of cloth produced in claim of the premium were, as might well be expected at the commencement of a manufacture, of a coarse kind, fit for sack-  
ing,



ing, hop-bagging, or other inferior uses; but a small piece shewn by the same Candidate, finer spun and closer woven, gave reason to believe that, by due management, a Cloth may be formed from these Stalks applicable to many useful purposes. If on further trial this should prove true, the Public will see another benefit arise from the continued and well directed premiums offered by the Society; from whose endeavours and perseverance, many of the improvements that have taken place of late years must be allowed to have proceeded.

The great and increasing consumption of Fish-oil has rendered the capture of Whales a matter of much importance; and it is with singular satisfaction the Society observe the advantages arising from the use of the Gun-Harpoon, whereby such fish as are at too great a distance to be taken by the Hand-Harpoon may be secured, as will fully appear from the Letters and Certificates inserted in the following pages,  
wherein

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wherein will be found accounts of the obtaining as many Whales as, on a moderate calculation, are valued at nine thousand pounds, few, if any, of which fish could have been secured by the ordinary means employed in the Whale-Fishery, and would have been lost but for the introduction of the Gun into that fishery.

One objection to the use of the Gun-Harpoon has now been obviated, by the contrivance of Mr. Moore to prevent the priming suffering any injury by the spray breaking over the boat in rough water. It has been often said, that from the above circumstance the Gun was apt to miss fire; but it will be seen by the Print, and confirmed by the several Certificates inserted in this Volume, that no mischief of that sort can happen with this kind of Gun. Of how much use such a contrivance may prove, in the construction of artillery in general, is submitted to the consideration of the Gentlemen of the Army, who may perhaps find

find methods of using it to great advantage in their profession.

In the class of Mechanicks are also inserted a Plate and Description of the Weighing Machine, by Monsieur Hanin, by which, at one view, the weights of several countries of Europe, and the relative proportion they bear to each other, are distinctly shewn. It is presumed, a machine of this kind will be found very useful; and even the print of it, as here inserted, may answer very good purposes, where it is necessary to compare the several weights with each other.

A Plate is also given in this Volume of two Instruments which have been found of considerable utility: the one for drawing Nails and Bolts from Timber; and the other for diminishing Maps, Plans, &c. Both these are of very simple construction, and promise to be of considerable use.

The

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The Letters from Dr. Titford, inserted under the head of Colonies and Trade, furnish some hints relative to the future importation of Coffee, which may be of use to the dealers in that article. As it appeared, on examining into the business, that although no quantity of Coffee has hitherto been brought into England in its pulp, yet, as it is the opinion of some Grocers, that Coffee brought over in the inner skin or parchment only, has an advantage over that thoroughly cleared from it; that Coffee might be manufactured here cheaper than in the West Indies, and that it would not be so much broken and consequently less wasted; it was judged proper to offer a Premium to any person who, in the year 1792, should import into the Port of London not less than fifty hundred weight of Coffee *in the Pulp*, in order that a fair and effectual trial may be made: and there can be no doubt, if it is found to succeed, that on proper application, Government will regulate the duty on Coffee hereafter in such manner,

manner, that the Merchant shall suffer no injury. In the Letters from this ingenious Correspondent will also be found some hints relative to the Manufacture of Duck or Sail-cloth, and the preserving Wood under water, which merit the attention of the Public.

In this Volume is inserted a Letter, from Dr. Dancer, which was accompanied by samples of the various articles there enumerated; and notwithstanding the injury they had suffered, it clearly appears that the Cinnamon now growing in Jamacia is of the best kind, or, what is called in Ceylon, *Rasse Coronde*, and promises in due time to become a valuable article of importation to this country.

The other Letter, under the head of Colonies and Trade, contains an authentic confirmation, by Hinton East, Esq. of the manner by which the Island of Jamaica was first furnished with the Cinnamon and other  
East-

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East-India plants and seeds. When it is recollected how difficult it is to obtain information relative to the introduction of any articles into a country where they are not indigenous, the recording such events must be highly pleasing to every reader.

Among the new Premiums offered this year, one appears for Draining Land in a more substantial and efficacious manner than is generally practised. As it is known that in many situations all attempts to improve the Soil, without first draining the Land, are nugatory and vain, it is believed the obtaining and laying before the Public the best and most approved method of performing that work, will be of very essential advantage to the Agriculture of this kingdom. In the class of Agriculture will also be found a Premium offered for the cure of the Rot in Sheep :- as the discovery of a remedy for this fatal disorder formerly occupied the attention of the Society, a variety of Papers have at different times been received,  
but

but all of them unsatisfactory: it is now therefore renewed, in hopes that some remedy will be found for this complaint, which commits such dreadful ravage among the flocks, the nature of which does not appear to have been well understood, nor for which a rational method of cure has ever yet been established.

A Premium was formerly offered by the Society for using *Gypsum*, or the stone from which plaster of Paris is prepared, as a manure. This was done, in consequence of some Letters from Switzerland, in which that material was highly recommended; but no claims having been made, it was some years since discontinued: it is now resumed, several accounts from America giving reason to think it may be of service when applied as a top-dressing for Land. See Young's Annals of Agriculture, N<sup>o</sup> 85.

In the class of Chemistry a hint is taken from the Letter of Mr. Pitt, and a premium

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**mium offered for condensing Smoke; which, if found practicable, may prevent that annoyance so frequently and justly complained of by persons who are situated near large works, as Founderies, Breweries, &c.**

The preserving Fresh Water sweet, for the use of Seamen during long voyages, is a matter of so much importance, that it will readily appear how proper it is a premium should be offered, to obtain a method of doing it: such Premium therefore will be found in this Volume; and it is hoped ingenious persons will employ their thoughts thereon, as it is hardly possible to conceive an object of more utility to the maritime interests of this country.

The use of the Gun-Harpoon in the Whale Fishery being now established, it has been thought proper to change the condition of the premium offered for encouraging the use of it, and henceforward to give a certain sum to that Harpooner who shall  
a strike



strike the greatest number of Whales therewith: this, it is presumed, will stimulate the Harpooners to employ it more frequently, which, there is great reason to believe, will render that Fishery a still more advantageous branch of Commerce.

The great addition of Members during the last session, and the improving state of the Society, fully shew the sentiments of the Public, and the advantages that have arisen from the publication of these Volumes. It remains therefore only to invite ingenious persons to come forward, and claim the Rewards so generously offered, and thereby not only advance their own honour and interests, but increase the most essential concerns of their country, by promoting the Arts, the Manufactures, and the Commerce of it, which are the immediate views of this Institution, and by which alone these kingdoms have arisen to their present state of opulence and magnificence.

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